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ABSTRACT

The United States Training and Employment Service General Aptitude Test Battery (GATB), first published in 1947, has been included in a continuing program of research to validate the tests against success in many different occupations. The GATB consists of 12 tests which measure nine aptitudes: General Learning Ability; Verbal Aptitude; Numerical Aptitude; Spatial Aptitude; Form Perception; Clerical Perception; Motor Coordination; Finger Dexterity; and Manual Dexterity. The aptitude scores are standard scores with 100 as the average for the general working population, and a standard deviation of 20. Occupational norms are established in terms of minimum qualifying scores for each of the significant aptitude measures which, when combined, predict job performance. Cutting scores are set only for those aptitudes which aid in predicting the performance of the job duties of the experimental sample. The GATB norms described are appropriate only for jobs with content similar to that shown in the job description presented in this report. A description of the validation sample and a personnel evaluation form are also included. (AG)

July 1967

United States Employment Service Test Research Report

S-349R

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**Development of USES Aptitude Test Battery
for**

Meat Cutter

(ret. tr.; whole. tr.) 316.884

**U.S. DEPARTMENT OF LABOR
MANPOWER ADMINISTRATION
BUREAU OF EMPLOYMENT SECURITY**

Technical Report on Development of USES Aptitude Test Battery

For.....

Meat Cutter (ret. tr.; whole. tr.) 316.884

S-349R

U. S. Employment Service
in Cooperation with
California and Michigan
State Employment Services

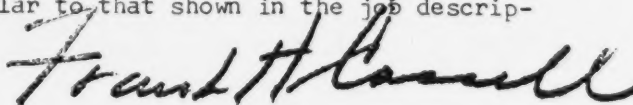
Revised July 1967

FOREWORD

The United States Employment Service General Aptitude Test Battery (GATB) was first published in 1947. Since that time the GATB has been included in a continuing program of research to validate the tests against success in many different occupations. Because of its extensive research base the GATB has come to be recognized as the best validated multiple aptitude test battery in existence for use in vocational guidance.

The GATB consists of 12 tests which measure 9 aptitudes: General Learning Ability, Verbal Aptitude, Numerical Aptitude, Spatial Aptitude, Form Perception, Clerical Perception, Motor Coordination, Finger Dexterity, and Manual Dexterity. The aptitude scores are standard scores with 100 as the average for the general working population, with a standard deviation of 20.

Occupational norms are established in terms of minimum qualifying scores for each of the significant aptitude measures which, in combination, predict job performance. For any given occupation, cutting scores are set only for those aptitudes which contribute to the prediction of performance of the job duties of the experimental sample. It is important to recognize that another job might have the same job title but the job content might not be similar. The GATB norms described in this report are appropriate for use only for jobs with content similar to that shown in the job description included in this report.



Frank H. Cassell, Director
U. S. Employment Service

GATB STUDY #2644,
2562, 2650

DEVELOPMENT OF USES APTITUDE TEST BATTERY

For

Meat Cutter (ret. tr.; whole. tr.) 316.884-018
S-349R

This report describes research undertaken for the purpose of validating and cross-validating General Aptitude Test Battery(GATB) norms for the occupation of Meat Cutter (ret. tr.; whole. tr.) 316.884. The following norms were established:

GATB Aptitudes	Minimum Acceptable GATB Scores
S - Spatial Aptitude	85
P - Form Perception	80
M - Manual Dexterity	85

RESEARCH SUMMARY - VALIDATION SAMPLE

Sample:

50 male Meat Cutters employed in the San Francisco - Oakland, California, Bay area.

Criterion:

Supervisory ratings

Design:

Concurrent (test and criterion data were collected at approximately the same time).

Minimum aptitude requirements were determined on the basis of a job analysis and statistical analyses of aptitude mean scores, standard deviations, and selective efficiencies.

Concurrent Validity:

Phi Coefficient (ϕ) = .68 ($P/2 < .0005$)

Effectiveness of Norms:

Only 74 percent of the non-test-selected workers used for this study were good workers; if the workers had been test-selected with the S-349R norms, 90 percent would have been good workers. 26 percent of the non-test-selected workers were poor workers; if the workers had been test-selected with the S-349R norms, only 10 percent would have been poor workers. The effectiveness of the norms is shown graphically in Table 1:

TABLE 1

Effectiveness of Norms

	Without Tests	With Tests
Good Workers	74%	90%
Poor Workers	26%	10%

VALIDATION SAMPLE DESCRIPTION

Size:

N = 50

Occupational Status:

Employed workers

Work Setting:

Workers were employed by the following companies.

1. Safeway Stores Incorporated, San Francisco, California.
2. Lucky Stores Incorporated, San Leandro, California.
3. Consumers Cooperative of Berkeley, Incorporated, Berkeley, California.
4. Louis Stores Incorporated, Emeryville, California.
5. Diamond Properties, San Francisco, California.
6. Food Farm, Oakland, California.
7. Emby Foods Incorporated, Oakland, California.
8. Brentwood Markets Incorporated, San Francisco, California.

Employer Selection Requirements:

Education: Must be able to speak, read and write English. High school graduates preferred for all companies except Safeway Stores which requires graduation from high school or an equivalent certificate.

Previous Experience: Two year apprenticeship for journeymen Meat Cutters.

Tests: None

Physical Requirements: No impairment of back or limbs. Safeway Stores require all prospective employees to pass company physical examination.

Other: Interview and background spot check.

Principal Activities:

The job duties for each worker in the final sample are comparable to those in the job description in the Appendix.

Minimum Experience:

All workers in the sample had at least two years total job experience and at least six months job experience with their present employer. Two years experience is considered the minimum training to attain job proficiency.

TABLE 2

Means, Standard Deviations (SD), Ranges and Pearson Product-Moment Correlations with the Criterion (r) for Age, Education and Experience

	Mean	SD	Range	r
Age (years)	32.9	7.6	20-50	-.113
Education (years)	11.6	1.2	7-14	.220
Experience (months)	150.7	83.1	39-364	-.024

EXPERIMENTAL TEST BATTERY

All 12 tests of the GATB, B-1002B, were administered on various dates in February, March and May of 1966.

CRITERION

The criterion data consisted of supervisory ratings of job proficiency made at approximately the same times as test data were collected. Ratings and re-ratings, obtained at least two weeks later, were made by the immediate supervisor of each worker.

Rating Scale: An adaptation of USES Form SP-21, "Descriptive Rating Scale," was used. The scale (see Appendix) consisted of nine items covering different aspects of job performance. Each item had five alternatives corresponding to different degrees of job proficiency.

Reliability: A reliability coefficient of .87 was obtained between the initial ratings and re-ratings, indicating a significant relationship. The final criterion score consisted of the combined score of the two ratings.

Criterion Score Distribution:

Possible Range:	18-90
Actual Range:	45-79
Mean:	63.3
Standard Deviation:	8.2

Criterion Dichotomy: The criterion distribution was dichotomized into low and high groups by placing 26% of the sample in the low criterion group to correspond with the percentage of workers considered unsatisfactory or marginal. Workers in the high criterion group were designated as "good workers" and those in the low group as "poor workers." The criterion critical score is 58.

APTITUDES CONSIDERED FOR INCLUSION IN THE NORMS

Aptitudes were selected for tryout in the norms on the basis of a qualitative analysis of the job duties involved and a statistical analyses of test and criterion data. Aptitudes G, P, Q and K which do not have a significant correlation with the criterion were considered for inclusion in the norms because the qualitative analysis indicated that Aptitudes G, P and K were important for the job duties. In addition, the sample had a relatively low standard deviation on Aptitudes G, Q and K a relatively high mean score on Aptitudes P, Q and K. With employed workers, a relatively low standard deviation indicates that some pre-selection may have taken place, and this restricted range of scores (low standard deviation) will depress the correlation between the aptitude and the criterion. A relatively high mean score with employed workers may also indicate some sample pre-selection. Tables 3, 4 and 5 show the results of the qualitative and statistical analyses.

TABLE 3

Qualitative Analysis

(Based on the job analysis, the aptitudes indicated appear to be important to the work performed)

Aptitude	Rationale
G - General Learning Ability	Important to learn and understand work processes and to make independent judgments while working.
S - Spatial Aptitude	Important to visualize finished product while cutting and to determine most economical way to prepare cuts.
P - Form Perception	Important to perceive detail, to make visual comparisons in sizes and shapes.
K - Motor Coordination	Important to coordinate eyes and hands rapidly and accurately while cutting and operating equipment.
F - Finger Dexterity	Important to cut, roll and tie meats manually, or with machines.
M - Manual Dexterity	Important to operate and clean machines

TABLE 4

Means, Standard Deviations (SD), Ranges and Pearson Product-Moment Correlations with the Criterion (r) for the aptitudes of the GATB.

Aptitudes	Mean	SD	Range	r
G - General Learning Ability	99.3	13.3	73-133	.277
V - Verbal Aptitude	97.0	11.7	72-123	.138
N - Numerical Aptitude	97.4	14.0	63-124	.135
S - Spatial Aptitude	104.6	16.8	71-137	.448*
P - Form Perception	107.8	16.9	63-147	.063
Q - Clerical Perception	108.3	10.5	84-129	.151
K - Motor Coordination	105.8	13.4	78-132	.101
F - Finger Dexterity	91.4	20.1	55-134	.238
M - Manual Dexterity	105.8	20.3	61-145	.480*

*Significant at the .01 level

TABLE 5

Summary of Qualitative and Quantitative Data

Type of Evidence	Aptitudes									
	G	V	N	S	P	Q	K	F	M	
Job Analysis Data										
<u>Important</u>	X			X	X		X	X	X	
Irrelevant										
Relatively High Mean					X	X	X		X	
Relatively Low Standard Dev.	X	X				X	X			
Significant Correlation with Criterion				X					X	
Aptitudes to be Considered for Trial Norms	G			S	P	Q	K		M	

DERIVATION AND VALIDITY OF NORMS

Final norms were derived on the basis of a comparison of the degree to which trial norms consisting of various combinations of Aptitudes G, S, P, Q, K, and M at trial scores were able to differentiate between the 74% of the sample considered "good workers" and the 26% of the sample considered "poor workers". Trial cutting scores at five point intervals approximately one standard deviation below the mean are tried because this will eliminate about one third of the sample with three-aptitude norms. For two-aptitude trial norms, minimum cutting scores of slightly more than one standard deviation below the mean will eliminate about one third of the sample. And for four-aptitude trial norms, cutting scores of slightly less than one standard deviation below the mean will eliminate about one third of the sample. The Phi Coefficient was used as a basis

for comparing trial norms. Norms of S-85, P-80, and M-85 provided optimum differentiation. The validity of these norms is shown in Table 6 and is indicated by a Phi Coefficient of .68 (statistically significant at the .0005 level).

TABLE 6

Concurrent Validity of Test Norms, S-85, P-80, and M-85

	Nonqualifying Test Scores	Qualifying Test Scores	Total
Good Workers	2	35	37
Poor Workers	9	4	13
Total	11	39	50

Phi Coefficient (ϕ) = .68

Significant Level = $P/2 < .0005$

Chi Square (χ^2) = 22.85

DETERMINATION OF OCCUPATIONAL APTITUDE PATTERN

The data for this study met the requirements for incorporating the occupation studied into OAP-28 which is shown in Section II of the Manual for the General Aptitude Test Battery. A Phi Coefficient of .62 is obtained with the OAP-28 norms of S-75, P-75 and M-75.

GATB Study #2562

S-349R

Meat Cutter (ret. tr.; whole. tr.) 316.884-018

Check Study #1 Research Summary

Sample:

49 male Meat Cutters employed in the Detroit, Michigan Metropolitan area.

TABLE 7

Means, Standard Deviations (SD), Ranges, and Pearson Product-Moment Correlations with the Criterion (r) for Age, Education, Experience, and the Aptitudes of the GATB - Cross-Validation Sample #1

	Mean	SD	Range	r
Age (years)	33.2	7.6	24-55	-.306*
Education (years)	11.2	1.6	6-15	.019
Experience (months) (Present employer)	76.7	57.2	8-264	-.123
G - General Learning Ability	99.3	17.1	73-151	.482**
V - Verbal Aptitude	96.1	15.6	66-133	.481**
N - Numerical Aptitude	96.0	14.4	70-141	.373**
S - Spatial Aptitude	105.7	19.3	74-150	.350**
P - Form Perception	107.1	21.7	57-167	.291*
Q - Clerical Perception	100.2	14.5	70-135	.192
K - Motor Coordination	99.2	14.9	62-134	.150
F - Finger Dexterity	88.3	16.1	38-177	.422**
M - Manual Dexterity	112.2	20.9	65-166	.167

*Significant at the .05 level

**Significant at the .01 level

Criterion:

Supervisory ratings obtained in 1963-1965.

Design:

Concurrent (test and criterion data were collected at approximately the same time).

Principal Activities:

The duties for this sample are comparable to those shown in the job description in the Appendix.

Concurrent Validity:

Phi Coefficient (ϕ) = .33 ($P/2 < .025$)

Effectiveness of Norms:

Only 65 percent of the non-test-selected workers in this sample were good workers; if the workers had been test-selected with the S-349R norms, 74 percent would have been good workers. 35 percent of the non-test-selected workers in this sample were poor workers; if the workers had been test-selected with the S-349R norms, only 26 percent would have been poor workers.

TABLE 8

Effectiveness of S-349R Norms on Check Study Sample #1

	Without Tests	With Tests
Good Workers	65%	74%
Poor Workers	35%	26%

TABLE 9

Concurrent Validity of S-349R Norms (S-85, P-80, M-85)
on Check Study Sample #1

	Nonqualifying Test Scores	Qualifying Test Scores	Total
Good Workers	4	28	32
Poor Workers	7	10	17
Total	11	38	49

Phi Coefficient (ϕ) = .33
Significance Level = $P/2 < .025$

Chi Square (χ^2) = 5.24

GATB Study #2650

S-349R

Meat Cutter (ret. tr.; whole. tr.) 316.884-018

Check Study #2 Research Summary

Sample:

70 male Meat Cutters employed in the Los Angeles, California, Metropolitan area.

TABLE 10

Means, Standard Deviations (SD), Ranges and Pearson Product-Moment Correlations with the Criterion (r) for Age, Education, Experience and Aptitudes of the GATB - Cross-Validation Sample #2

	Mean	SD	Range	r
Age (years)	30.9	8.1	21-55	-.114
Education (years)	11.7	1.5	7-16	.219
Experience (months) (Total in occupation)	115.1	85.2	12-420	-.070
G - General Learning Ability	104.2	15.9	67-156	.239*
V - Verbal Aptitude	98.2	14.4	78-151	.179
N - Numerical Aptitude	102.9	16.4	65-151	.229
S - Spatial Aptitude	111.2	19.0	74-156	.270*
P - Form Perception	113.0	18.3	74-159	.275*
Q - Clerical Perception	112.5	14.7	70-148	.108
K - Motor Coordination	106.6	13.6	80-144	.026
F - Finger Dexterity	94.8	17.2	45-142	.008
M - Manual Dexterity	118.3	21.6	44-156	.100

*Significant at the .05 level

Criterion:

Supervisory ratings obtained in 1966.

Design:

Concurrent (test and criterion data were collected at approximately the same time).

Principal Activities:

The job duties of the occupation are shown in the Appendix and are comparable to those of the Validation sample.

Concurrent Validity:

Phi Coefficient (ϕ) = .24 ($P/2 < .025$)

Effectiveness of Norms:

Only 66 percent of the non-test-selected workers in this sample were good workers; if the workers had been test-selected with the S-349R norms, 71 percent would have been good workers. 34 percent of the non-test-selected

workers in this sample were poor workers; if the workers had been test-selected with the S-349R norms, only 29 percent would have been poor workers.

TABLE 11

Effectiveness of S-349R Norms on Check Study Sample #2

	Without Tests	With Tests
Good Workers	66%	71%
Poor Workers	34%	29%

TABLE 12

Concurrent Validity of S-349R Norms (S-85, P-80, M-85)
on Check Study Sample #2

	Nonqualifying Test Scores	Qualifying Test Scores	Total
Good Workers	6	40	46
Poor Workers	8	16	24
Total	14	56	70

Phi Coefficient (ϕ) = .24
Significance Level = $P/2 < .025$

Chi Square (χ^2) = 4.05

A-P-P-E-N-D-I-X

"Criterion for Validation Study"

SCORE _____

DESCRIPTIVE RATING SCALE FOR APTITUDE TEST DEVELOPMENT STUDIES

RATING SCALE FOR _____
(Name of worker) (D.O.T. Title & Code)
RATED BY _____ RATER'S TITLE _____
DATE _____ COMPANY JOB TITLE _____

How long have you worked with him?

- ☐ Under one month
- ☐ One to two months
- ☐ Three to five months
- ☐ Six or more months

How often do you see him at work?

- ☐ All the time
- ☐ Several times a day
- ☐ Several times a week
- ☐ Seldom

1. Quantity of work (Ability to make efficient use of time and to work at high speed)

- ☐ Unsatisfactory
- ☐ Below average
- ☐ Average
- ☐ Above average
- ☐ Outstanding

2. Quality or accuracy of work

- ☐ Unsatisfactory
- ☐ Below average
- ☐ Average
- ☐ Above average
- ☐ Outstanding

3. Job knowledge

- ☐ Unsatisfactory
- ☐ Below average
- ☐ Average
- ☐ Above average
- ☐ Outstanding

4. Aptitude for this work (Ability or knack for performing job easily and well)

- ☐ Unsatisfactory
- ☐ Below average
- ☐ Average
- ☐ Above average
- ☐ Outstanding

5. Flexibility (Resourcefulness - ability to apply what he already knows to a new situation)

- ☐ Unsatisfactory
- ☐ Below average
- ☐ Average
- ☐ Above average
- ☐ Outstanding

6. Versatility (Ability to perform a number of different job duties efficiently)

- ☐ Unsatisfactory
- ☐ Below average
- ☐ Average
- ☐ Above average
- ☐ Outstanding

7. Learning speed on new techniques or processes

- ☐ Unsatisfactory
- ☐ Below average
- ☐ Average
- ☐ Above average
- ☐ Outstanding

8. Ability to improve work procedures and/or methods by practical suggestions

- ☐ Unsatisfactory
- ☐ Below average
- ☐ Average
- ☐ Above average
- ☐ Outstanding

9. Overall job performance based ONLY on factors listed above

- ☐ Unsatisfactory
- ☐ Below average
- ☐ Average
- ☐ Above average
- ☐ Outstanding

SP-21
Rev. 2/61

"Criterion for Check Studies"

DESCRIPTIVE RATING SCALE
(For Aptitude Test Development Studies)

Score _____

RATING SCALE FOR _____
D. O. T. Title and Code

Directions: Please read Form SP-20, "Suggestions to Raters", and then fill in the items listed below. In making your ratings, only one box should be checked for each question.

Name of Worker (print) _____
(Last) (First)

Sex: Male _____ Female _____

Company Job Title: _____

How often do you see this worker in a work situation?

- ☐ See him at work all the time.
☐ See him at work several times a day.
☐ See him at work several times a week.
☐ Seldom see him in work situation.

How long have you worked with him?

- ☐ Under one month.
☐ One to two months.
☐ Three to five months.
☐ Six months or more.

A. How much work can he get done? (Worker's ability to make efficient use of his time and to work at high speed.)

- ☐ 1. Capable of very low work output. Can perform only at an unsatisfactory pace.
- ☐ 2. Capable of low work output. Can perform at a slow pace.
- ☐ 3. Capable of fair work output. Can perform at an acceptable but not a fast pace.
- ☐ 4. Capable of high work output. Can perform at a fast pace.
- ☐ 5. Capable of very high work output. Can perform at an unusually fast pace.

B. How good is the quality of his work? (Worker's ability to do high-grade work which meets quality standards.)

- ☐ 1. Performance is inferior and almost never meets minimum quality standards.
- ☐ 2. The grade of his work could stand improvement. Performance is usually acceptable but somewhat inferior in quality.
- ☐ 3. Performance is acceptable but usually not superior in quality.
- ☐ 4. Performance is usually superior in quality.
- ☐ 5. Performance is almost always of the highest quality.

C. How accurate is he in his work? (Worker's ability to avoid making mistakes.)

- ☐ 1. Makes very many mistakes. Work needs constant checking.
- ☐ 2. Makes frequent mistakes. Work needs more checking than is desirable.
- ☐ 3. Makes mistakes occasionally. Work needs only normal checking.
- ☐ 4. Makes few mistakes. Work seldom needs checking.
- ☐ 5. Rarely makes a mistake. Work almost never needs checking.

D. How much does he know about his job? (Worker's understanding of the principles, equipment, materials and methods that have to do directly or indirectly with his work.)

- ☐ 1. Has very limited knowledge. Does not know enough to do his job adequately.
- ☐ 2. Has little knowledge. Knows enough to "get by."
- ☐ 3. Has moderate amount of knowledge. Knows enough to do fair work.
- ☐ 4. Has broad knowledge. Knows enough to do good work.
- ☐ 5. Has complete knowledge. Knows his job thoroughly.

E. How much aptitude or facility does he have for this kind of work? (Worker's adeptness or knack for performing his job easily and well.)

- ☐ 1. Has great difficulty doing his job. Not at all suited to this kind of work.
- ☐ 2. Usually has some difficulty doing his job. Not too well suited to this kind of work.
- ☐ 3. Does his job without too much difficulty. Fairly well suited to this kind of work.
- ☐ 4. Usually does his job without difficulty. Well suited to this kind of work.
- ☐ 5. Does his job with great ease. Exceptionally well suited for this kind of work.

F. How large a variety of job duties can he perform efficiently? (Worker's ability to handle several different operations in his work.)

- ☐ 1. Cannot perform different operations adequately.
- ☐ 2. Can perform a limited number of different operations efficiently.
- ☐ 3. Can perform several different operations with reasonable efficiency.
- ☐ 4. Can perform many different operations efficiently.
- ☐ 5. Can perform an unusually large variety of different operations efficiently.

- G. How resourceful is he when something different comes up or something out of the ordinary occurs? (Worker's ability to apply what he already knows to a new situation.)
- ☐ 1. Almost never is able to figure out what to do. Needs help on even minor problems.
 - ☐ 2. Often has difficulty handling new situations. Needs help on all but simple problems.
 - ☐ 3. Sometimes knows what to do, sometimes doesn't. Can deal with problems that are not too complex.
 - ☐ 4. Usually able to handle new situations. Needs help on only complex problems.
 - ☐ 5. Practically always figures out what to do himself. Rarely needs help, even on complex problems.
- H. How many practical suggestions does he make for doing things in better ways? (Worker's ability to improve work methods.)
- ☐ 1. Sticks strictly with the routine. Contributes nothing in the way of practical suggestions.
 - ☐ 2. Slow to see new ways to improve methods. Contributes few practical suggestions.
 - ☐ 3. Neither quick nor slow to see new ways to improve methods. Contributes some practical suggestions.
 - ☐ 4. Quick to see new ways to improve methods. Contributes more than his share of practical suggestions.
 - ☐ 5. Extremely alert to see new ways to improve methods. Contributes an unusually large number of practical suggestions.
- I. Considering all the factors already rated, and only these factors, how acceptable is his work? (Worker's "all-around" ability to do his job.)
- ☐ 1. Would be better off without him. Performance usually not acceptable.
 - ☐ 2. Of limited value to the organization. Performance somewhat inferior.
 - ☐ 3. A fairly proficient worker. Performance generally acceptable.
 - ☐ 4. A valuable worker. Performance usually superior.
 - ☐ 5. An unusually competent worker. Performance almost always top notch.

July 1967

S-349R

FACT SHEET

Job Title: Meatcutter (ret. tr., whole. tr.) 316.884-018

Job Summary: Cuts meat, fish, and fowl for packaging, or at customer request, using knives, saws, and power tools, displays cuts in counter display case, and sells food items to customers.

Work Performed: Cuts meats. Pushes primal cuts of meat hanging on hooks, along overhead rail from cooler to cutting room. Removes primary bone, using cutting knife and boning hook to hold meat while on overhead hook. Lifts meat onto carriage of band saw to reduce primal cuts of beef, veal, lamb, and pork to chucks, rounds, loins, and ribs for more convenient storage in refrigerator, further reduction for packaging, or for counter display. Pushes meat on carriage through saw blade, making facing cut to square piece, and continues to make uniform cuts. Places cuts on wiper table, which has two rotating rollers of bristle brushes. Slides cuts of meat over brushes to remove bone dust from sawing, and stacks cuts on trimming table.

Trims, slices, grinds, and tenderizes meats: Trims off excess fat from meats. Cuts out bones with 5-inch tapered blade trimming knife. Throws bones and fat into separate barrels. Places trimmed cuts in individual plastic trays, and stacks them on long aluminum trays. Carries aluminum trays to rollers leading into store for weighing, wrapping, and pricing by MEATWRAPPER, or carries trays into cooler for storing. Trims pieces, such as hearts and livers, and places them in small containers. Places specified portions of meat in tenderizing machine to break fibers. Drops small cuts of meat into grinding machine to produce ground meats. Clamps ham, bacon, beef, or luncheon meats on carriage of slicing machine, and adjusts knob for proper thickness of cut for machine to slice meats. Places ground meat in hopper of pattie-making machine which automatically forms, presses, and stacks hamburger patties separated by waxed paper. Rolls and ties various cuts of meat into rolled roasts, using tying machine.

Displays meats, fowl, and fish: Clears space in display case and places sign identifying cut and price of meat. Receives packaged meat with label showing weight and price from MEATWRAPPER. Places and arranges packaged cuts of meat, fowl, and fish on trays in counter display case in attractive manner and replenishes as needed.

Sells meats: Greet customer. Determines kind and quantity of meat desired by customer and answers questions concerning price, cuts available, and cooking procedures. Cuts meat to customer's specifications. Weighs, quotes final price, wraps meat, and writes price on outside of package. Receives payment, makes change, and gives package and change to customer, if meat department is not self-service.

Performs cleaning duties: Scours, washes, and scrubs tools, equipment, and work area to maintain sanitary conditions.

Demonstrates and explains, as required, cutting techniques to Meat Cutter apprentice to facilitate on-the-job training.

Effectiveness of Norms:

Only 74 percent of the non-test-selected workers used for this study were good workers; if the workers had been test-selected with the S-349R norms, 90 percent would have been good workers. 26 percent of the non-test-selected workers were poor workers; if the workers had been test-selected with the S-349R norms, only 10 percent would have been poor workers.

Applicability of S-349R Norms:

The aptitude test battery is applicable to jobs which include a majority of duties described above.